EMERGENCY AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

www.faa.gov/aircraft/safety/alerts/

DATE: August 15, 2006
AD #: 2006-17-51

Send to all U.S. owners and operators of Agusta S.p.A. Model AB139 helicopters.

This Emergency Airworthiness Directive (AD) is prompted by several reports of tailpipe assembly cracks. This condition, if not corrected, could result in a fire due to the structure in the cowling area overheating, separation of a part or a tailpipe assembly, and subsequent loss of control of the helicopter.

The FAA has reviewed Bollettino Tecnico No. 139-069, dated August 11, 2006 (BT), which describes procedures for a detailed visual inspection for cracks on the tailpipe.

The European Aviation Safety Agency (EASA) notified us that an unsafe condition may exist on Agusta S.p.A. Model AB139 helicopters. EASA advises that the field has reported tailpipe assembly cracks. EASA also advises that this issue, if not corrected, could lead to overheating of the structure in the cowling area or separation of parts hence endangering the safety of helicopter flight. EASA classified the BT as mandatory and issued Emergency AD No. 2006-0242-E, dated August 11, 2006, to ensure the continued airworthiness of these helicopters in Italy.

This helicopter model is manufactured in Italy and is type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, EASA has kept the FAA informed of the situation described above. The FAA has examined the findings of EASA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

The reason for the cracked tailpipe assemblies has not been determined and is still under investigation.

This unsafe condition is likely to exist or develop on other helicopters of the same type design. Therefore, this AD requires the following:

- Before further flight, and thereafter at intervals not to exceed 25 hours time-in-service, access the rear areas of each tailpipe assembly by removing the rear cowling.
- Visually inspect each tailpipe assembly inside the cowling for a crack.

- Inspect the structure surrounding each tailpipe assembly for overheating. If you find areas of overheating, inspect for damage to the surrounding structure.
- Inspect for overheating in the area of each tailpipe assembly outside the cowling. Inspect the internal part of each tailpipe assembly in the areas depicted in Areas A, Figure 1, of this AD for a crack:
    - Clean the end of each tailpipe assembly with a cloth. While applying slight pressure on it, inspect for a crack using a flashlight.
    - Inspect each tailpipe assembly toward the centerline of the helicopter for a crack using a flashlight.
    - Inspect each tailpipe assembly toward the outside of the helicopter for a crack using a mirror and a flashlight.
- If you find a crack, before further flight, replace the tailpipe assembly with an airworthy tailpipe assembly.

This rule is issued under 49 U.S.C. Section 44701 pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this emergency AD.

2006-17-51 AGUSTA S.p.A.: Directorate Identifier 2006-SW-20-AD.

Applicability: Model AB139 helicopters, with tailpipe assembly left hand, part number (P/N) 3G7800L00131 and right hand, P/N 3G7800L00231, installed, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent a fire due to the structure in the cowling area overheating, separation of part of each tailpipe assembly, and subsequent loss of control of the helicopter, do the following:

(a) Before further flight, and thereafter at intervals not to exceed 25 hours time-in-service, access the rear areas of each tailpipe assembly by removing the rear cowlings.

(1) Visually inspect each tailpipe assembly inside the cowling for a crack.

Note 1: Bollettino Tecnico No. 139-069, dated August 11, 2006 (BT), pertains to the subject of this AD.

Note 2: Aircraft Maintenance Publication (AMP) AB139 pertains to the subject of this AD.

(2) Inspect the structure surrounding each tailpipe assembly for overheating. If you find areas of overheating, inspect for heat damage to the surrounding structure. Inspect for overheating in the area of each tailpipe assembly outside the cowling. Inspect the internal part of each tailpipe assembly in the areas depicted in Areas A, Figure 1, of this AD.

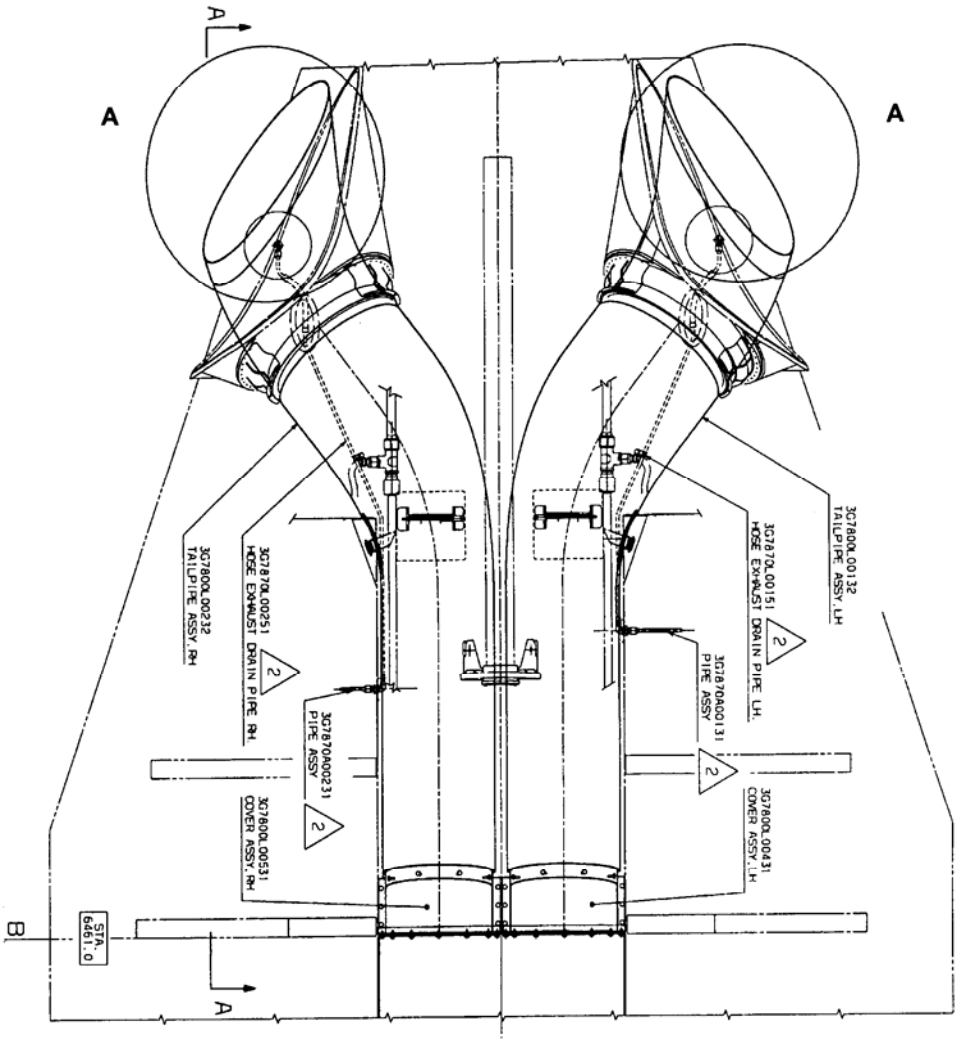
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Figure 1

(i) Clean the end of each tailpipe assembly with a cloth. While applying slight pressure on it, inspect for a crack using a flashlight.

(ii) Inspect each tailpipe assembly toward the centerline of the helicopter for a crack using a flashlight.

(iii) Inspect each tailpipe assembly toward the outboard side of the helicopter for a crack using a mirror and a flashlight.

(3) If you find a crack, before further flight, replace the tailpipe assembly with an airworthy tailpipe assembly.

(b) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, FAA, ATTN: Ed Cuevas, Aviation Safety Engineer, Fort Worth, Texas 76193-0111, telephone (817) 222-5355, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(c) Emergency AD 2006-17-51, issued August 15, 2006, becomes effective upon receipt.

Note 3: The subject of this AD is addressed in the European Aviation Safety Agency (EASA) AD 2006-0242-E, dated August 11, 2006.

Note 4: This AD differs from the BT and the EASA AD in that the BT and EASA AD allows repairs of certain cracks in each tailpipe assembly.

FOR FURTHER INFORMATION CONTACT: Ed Cuevas, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Safety Management Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5355, fax (817) 222-5961.

Issued in Fort Worth, Texas, on August 15, 2006.

David A. Downey,
Manager, Rotorcraft Directorate,
Aircraft Certification Service.